Ammonæmia is in like manner due to the presence in the blood of an alkaloidal substance. In this case, however, it is produced in the bladder, where, under the influence of microörganisms, the urine decomposes and sets up a cystitis, thus allowing the poison to be absorbed.

In regard to the therapy, the author says that numerous experiments have taught him that even large doses of most of the antipyretics are not irritating to the kidneys, but that they also have no influence on the nephritis. The only exception is salicylic acid, which, given from the beginning of scarlatina, not only seems to diminish the intensity of the attack, but to banish the danger of scarlatinal nephritis. In general, however, he is opposed to all vigorous treatment, and recommends a strict milk diet as the most rational means of cure.

HAGENBACH (*Ibid.*), in discussing more particularly the clinical side of the subject, refers to the great frequency of renal inflammation after scarlet fever. In 81 autopsies on cases of scarlatina at the Basle hospital, nephritis was found 55 times. The first appearance of the inflammation may occur at different periods of the disease. Its symptoms are various, and he has seen uræmia only 27 times in 416 cases. There seems to be a family predisposition to scarlatinal nephritis. Hypertrophy and dilatation of the left ventricle are very common. The affection lasts two or three weeks or longer, and usually ends in recovery. Albuminuria is rather common in diphtheria, the author having observed nephritis 52 times in 150 autopsies. According to his experience, the albuminuria usually occurs in the first week of the disease, and is nearly always due to renal inflammation, though in very severe cases cardiac weakness or laryngeal stenosis may bring it about. Nephritis is rare in measles, varicella and rubella, and the same is true of it in catarrhal angina, parotitis, and aphthous stomatitis. He has seen it occur but rarely in typhoid, the kidneys being involved only 8 times in 300 cases, while in 24 autopsies there was nephritis in but 3 instances.

THE RELATIVE VALUE OF OPIUM, MORPHINE, AND CODEINE IN DIABETES MELLITUS.

Codeine, says FRASER (*Brit. Med. Journ.*, January 19, 1889, 118), is in its important actions only a weak morphine diluted by the addition to it of methyl. As it has been so largely used in the treatment of diabetes, he has made some clinical experiments with it in this disease, comparing it with the action of opium and of morphia. These seem to indicate that codeine is a less powerful remedy in diabetes than either of the other drugs, and to confirm the view that in its therapeutic value it ranks as a weak or diluted morphia. As its cost is about three times that of morphia, and as the large demand for it has led to its being largely manufactured from the latter drug, and being, therefore, an artificial product, there should be more clear evidence of its superiority to justify its administration in this disease.

ALKALINE INTRA-VENOUS INJECTIONS IN DIABETES

Last year R. Lepine reported the case of a patient with diabetes already in an advanced state of coma, to whom he gave an intra-venous injection of 3 litres of warm water, containing 44 grammes of bicarbonate of soda. It could not be said that the immediate effect was bad, and the treatment could not be condemned as useless, because the condition of the patient was so extreme when it was instituted. Minkowski having since reported a successful case, LEPINE (*Rev. de Méd.*, December, 1888, 1004) records another instance in which he followed this procedure. The patient, a well-marked case of diabetes, suffered from headache, trembling of the limbs, unconsciousness, clonic convulsions, rapid pulse, and hallucinations. The urine had a very characteristic sour odor, and examination at different times showed it to contain formic acid, and very probably oxybutyric acid also. In view of the patient's condition it was decided to try an intra-venous injection; and accordingly 600 c.cm. of a warm sterilized 5 per cent. solution of bicarbonate of soda were administered in this way. During the process the pulse became feebler, and afterward there was an intense chill, followed by a rise of temperature, an increase in the rapidity of the pulse, and a semi-comatose condition. Later this deepened into profound coma, followed by death. The autopsy revealed no condition sufficient to explain the fatal termination of the case. Shortly before death the patient voided neutral or feebly alkaline urine.

The author concludes from this experience that although this alkalinity of the urine was produced by the saline injection, it did not relieve the diabetic symptoms, but rather aggravated the cerebral condition, and accelerated the fatal ending.

A GOOD BREAD FOR DIABETICS.

Admitting that the so-called gluten flours are not what they should be, and that the first thing in the treatment of diabetes is the avoidance of starches and sugar, J. A. JEFFRIES (*Bost. Med. and Surg. Journ.*, Jan. 14, 1889, p. 87) discusses the production of a suitable bread for these cases. Experience seems to show that it is the form and taste of bread which are desired by the patient, and not that starch is craved by the stomach and intestines. He has succeeded in preparing two kinds of bread. The first is simply an improvement on those now in use, but has the merit of being cheap and easily made. The recipe is: 1 cup of Graham flour; 1 cup of the best bran previously scalded with 1 cup of boiling water; 2 eggs; German yeast or baking powder; salt to taste; 1 cup of milk or water. To be mixed with a spoon. This bread contains 17.72 per cent. of starch, equalling 19.68 per cent. of sugar. The second bread, he claims, is a great improvement on those ordinarily in use, but it is as yet difficult to prepare and expensive. It is made from gluten, which may be obtained from the starch factories, and ground into a fine flour. The author procured that which he employed from Thomas Metcalf & Co.

The formula for the bread is: 1 cup of gluten flour; 1 cup of the best bran previously scalded; 1 teaspoonful of baking powder; salt to taste; 2 eggs; 1 cup of milk or water. This bread, also, must be mixed with a spoon, as to use the hands would be even worse than in the making of ordinary bread. Bread thus made is palatable, nutritious, healthful, and contains only 4.57 per cent. of starch (5.08 per cent. of sugar) according to the analysis of Dr. Harrington.

WOLTERING (*Berlin. klin. Wochenschr.*, 1888, No. 38) also describes a gluten bread similar to the above. He gives analyses of wheat flour, and then of